

**Engineers Australia
Engineering Heritage Victoria**

**Nomination for Recognition
Engineering Heritage Australia Recognition Program**

Walhalla Goldfields Railway



September 2016

CAPTION FOR COVER IMAGE

Excursion train crossing Thomson River (Victoria) ca 1910.

Image: W. Lee.

REVISION/CHECKING HISTORY

REVISION NUMBER	DATE	CHECKED BY		ISSUED BY	
0	22 September 2016				
1	23 September 2016				

THIS NOMINATION COMPILED BY:

Ian Newnham

Secretary

Friends of No.21 Dredger

On behalf of the Gippsland Regional Group, Engineers Australia

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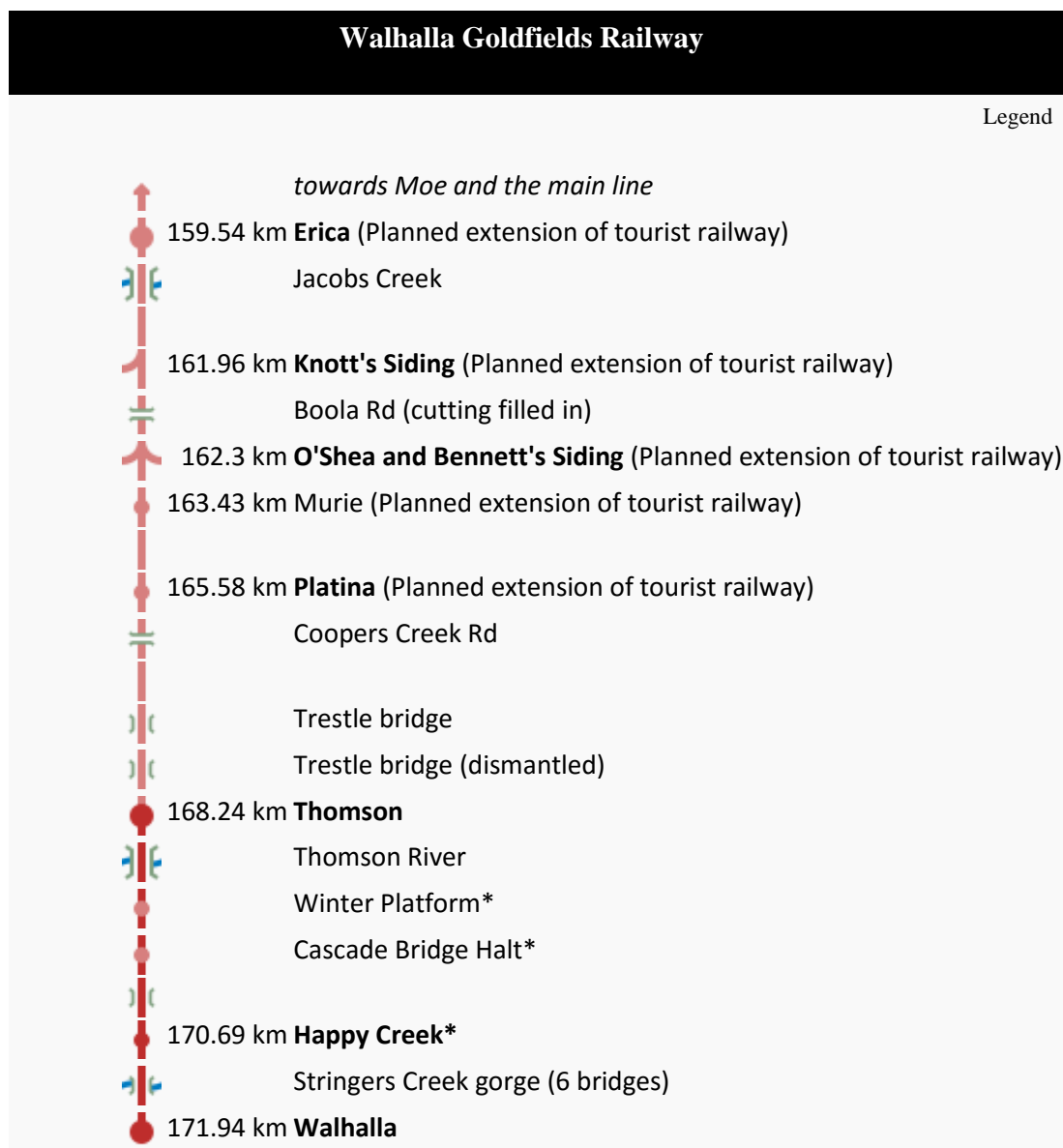
1 INTRODUCTION

The last of four experimental narrow gauge lines of the Victorian Railways, construction of the Moe-Walhalla railway commenced in 1904, but was not completed until 1910. The railway was expected to be a boon for Walhalla, which was in a state of decline with gold mining operations becoming uneconomical. The largest gold mining company closed in 1914.

After the closure of the Walhalla mines, substantial timber traffic was carried from saw-mills around Erica until the late 1940s. Goods and passenger traffic declined, with the railway closed in sections from 1944 with the final section from Moe to Erica closed on 25 June 1954. The tracks and buildings were removed by 1960, leaving only the roadbed and a number of bridges.

2 LOCATION

The Walhalla Goldfields Railway is a 2 ft 6 in (762 mm) narrow gauge tourist railway located in the Thomson River and Stringers Creek valleys in Gippsland, Victoria, Australia, near the former gold-mining town and tourist destination of Walhalla.



* refers to stations built during the reconstruction of the Walhalla Tourist railway

Distances refer to distance from Southern Cross Station, Melbourne.

3 HISTORY

After years of lobbying for a railway by the community of Walhalla, a survey was conducted and a 2'6" narrow gauge line was recommended, starting at Moe on the main Gippsland line. A bill was passed by Parliament and construction of the Moe – Walhalla Railway commenced in 1904. The last 2 miles (approx.) was constructed alongside and across the Stringers Gorge leading into Walhalla. A major feature of the line is the Thomson River Bridge, now National Estate listed. The bridge is an interesting mix of construction techniques with the centre span being formerly part of a road bridge over the Murray River at Tocumwal (NSW).

The line was the last of four experimental narrow gauge lines of the Victorian Railways, and despite being commenced in 1904, it was not completed until 1910. The railway was expected to be a boon for Walhalla, which was in a state of decline with gold mining operations becoming uneconomical. The Long Tunnel Extended Goldmine closed in 1911 and its other record-breaking goldmine, the Long Tunnel, in 1914.

After the closure of the Walhalla mines, substantial timber traffic was carried from saw-mills around Erica until the late 1940's. Goods and passenger traffic declined, with the railway closed in sections and in 1944 the service to Walhalla ceased operating beyond Platina. In June, 1954, with only one mixed train operating to Erica each week, the line from Moe was finally closed. Dismantling of the line commenced in 1956 with the tracks and buildings removed by 1960, leaving only the roadbed and a number of bridges.

The former station building at Walhalla was re-located to the Melbourne suburban station of Hartwell.

4 CONSTRUCTION

The construction of the gorge section started in 1908 and was completed in 1910. The railway was cut into the side of the gorge, using explosives and clearing the rubble by hand. The line gradient was 1 yard in every 30 yards.

Because of the steep terrain eight bridges were built, starting at the Thomson River and ending at Walhalla Yard. The first was the major bridge built over the Thomson River. Four trestle bridges crossed Stringers Creek, and three were constructed on the sides of the gorge, piles being winched into place.



Building of Thomson River Bridge



Winching Piles Bridge 5



Constructing Railway Easement Stringers Gorge



Bridge 6 (Boat Belly Bridge) under original construction

Second hand materials were extensively used on the construction of the railway. Reclaimed bridge girders were consistently used.

100 men were employed in the clearing of the line. The local men working on the line were pretty harshly treated, the overseers standing over them, urging them on, and abusing anyone who eased up. Most of the construction was done by hand with the assistance of horses and related equipment.

In the Walhalla Yard, Stringers Creek was roofed and Thomson Station built on top. This was because there was simply not enough space otherwise.



Roofing of Stringers Creek

5 RESTORATION

A number of attempts were made to restore the line, with varying degrees of success. One such project conducted during the 1970's was known as the Walhalla & Thomson River Steam Tramway; this project saw the construction of a brick station building (since demolished) and the acquisition of an ex-West Melbourne Gasworks steam locomotive, which is now in the possession of the Puffing Billy Railway and operated as locomotive no. 861 (Decauville). A small section of track was completed within the Walhalla station grounds and steam train rides were held, however the lack of funds to restore the Stringers Creek trestle bridges saw no further progress with reconstructing the track, and the project was abandoned by the early 1980's. The owner sold all the remaining railway assets in 1983.

In 1991, with only the remains of derelict bridges on the right of way, the Walhalla Railway Taskforce was formed with the aim of restoring the line from Erica to Walhalla. In 1993 this became the Walhalla Goldfields Railway, Inc., and restoration began with the establishment of Thomson Station and its accompanying yard on the site of the original station. The former roadbed was overgrown with blackberries and heavy scrub, with numerous sections of the track bed collapsed and all the bridges either derelict or in ruinous condition.

6 REOPENING

The railway commenced operations in April, 1994, simply running up and down the Thomson Station yard. Gradually the line progressed, first over the nationally-heritage-classified Thomson River Bridge in May, 1994, then up the Stringers Creek Gorge to Leachville, over the Three Span Bridge, to Cascade Halt, to Happy Creek and finally, after the construction of the six railway bridges in the last kilometre, into the Walhalla Station yard for the opening of this section of the line on the 15th of March, 2002.

The operating line is 4 km in length.

Due to bushfires in the nearby mountains, services on the railway were suspended as from the weekend of 9 December 2006. By 18 December 2006 fires reached the outskirts of Walhalla, and on 22 December 2006 fire destroyed the three-span trestle bridge (Bridge 7) adjacent to the former temporary terminus known as Cascade Bridge Halt. Services resumed between Walhalla and Happy Creek on 31 December 2006.

On 10 March 2007, the Victorian State Government announced funding of A\$195,000 to rebuild the destroyed bridge and repair/upgrade the track. The bridge was completed in early April 2007 and normal operations between Thomson and Walhalla recommenced on Saturday 7 April.

In late 2014 the Walhalla Station saw the addition of a veranda to complete the original appearance of the station.

7 CURRENT OPERATION AND ROLLING STOCK



The Walhalla Goldfields Railway operates regular tourist services between Thomson and Walhalla stations, using diesel locomotives. Notably, the railway carries far more passengers as a tourist railway, than during its time as an operating revenue line. Around 30,000 passengers travel on the service each year, compared to around 1,000 annually during the latter years of the original railway's operation.




Due to the unavailability of original rolling stock from the railway (some of which is still in use on the Puffing Billy Railway near Melbourne), locomotives were acquired from a variety of locations, including two small industrial diesel engines from the Gippsland area, a larger diesel engine from the Emu Bay Railway in Tasmania and in November 2010, a DH Class diesel from the Queensland Railways.

A small Henschel & Son steam locomotive built in Kassel, Germany was used between 2002-06 but was removed from the railway due to contractual issues with its interstate owner. As part of the celebrations for the railway's centenary, the Puffing Billy Railway loaned steam locomotive 7A (which ran on the original line) for special public operations on the weekend of 29/30 May 2010. 7A is last believed to have operated through to Walhalla in 1936.

The passenger rolling stock was constructed from the frames and bogies from coal wagons from the now closed 900 mm (2 ft 11 7/16 in) narrow gauge Interconnecting Railway between Yallourn and Morwell, 40 km south of Walhalla. The buildings and new rolling stock designs reflect the original Victorian Railways design as much as possible.

While the railway did not use historical rolling stock at the time of reopening because all extant examples were owned and required by the Puffing Billy Railway, the collection is a significant piece of industrial railway history, and the WGR provides a valuable tourist train service for the regional economy.

In late 2015 the railway purchased two X1 trams #461 and #463 for the purpose of conversion to rail-motors to allow 7 days-a-week operation with reduced crewing.

Number	Name	Image	Wheel Arrgt	Year built	Builder	Notes
14	<i>Spirit of Yallourn</i>		0-6-ODM	1951	John Fowler & Co., Leeds, England	Former SECV diesel engine from the interconnecting railway between the Yallourn and Morwell open-cut brown coal mines. Donated to the WGR after the closure of the Interconnecting Railway in 1995. Regauged from 900 mm (2 ft 11 ⁷ / ₁₆ in) gauge.
030	<i>Kasey</i>		0-4-0	1970	EM Baldwin & Sons Pty Ltd, Sydney	Originally used by Melbourne & Metropolitan Board of Works, in the construction of the South Eastern Trunk Sewer, Thomson-Yarra tunnel and Western Trunk Sewer construction. Used on the Coal Creek Heritage Village's bush tramway, before being sold to the WGR.
1001	<i>Spirit of Emu Bay</i>		B-B	1963	Walkers Ltd., Maryborough, QLD	Used on the Emu Bay Railway (no. 1001) in Tasmania until the EBR was sold to Tasrail in 1998. In storage from 2000, then sold to WGR in April 2001. ^[8] Regauged from 3 ft 6 in (1,067 mm).
DH37 (MMY37)	<i>Currently unnamed</i>		B-B	1969	Walkers Ltd., Maryborough, QLD	Previously used by Queensland Railways, bought by WGR in November 2010. Stored pending future regauging from 1067mm.
DH72	<i>Currently unnamed</i>		B-B	1972	Walkers Ltd., Maryborough, QLD	Previously used by Queensland Railways, bought by WGR in June 2012. Stored pending future regauging from 1067mm.
X1 - 461	<i>Currently unnamed</i>		B-B	1926	Melbourne & Metropolitan Tramway Board (M&MTB), Melbourne, VIC	Previously used by M&MTB, bought by WGR in November 2015. Stored pending conversion to rail-motor.
X1 - 463	<i>Currently unnamed</i>		B-B	1926	M&MTB, Melbourne, VIC	Previously used by M&MTB, bought by WGR in November 2015. Stored pending conversion to rail-motor trailer.

8 LINE GUIDE

Future Development

The WGR is planning to extend the line to Erica, where the railway's permanent workshop complex will be built. Engineering assessments and a business plan have now been completed.

The first stage would extend through Platina to the site of O'Shea & Bennett's Siding at the junction of Boola Rd and the Walhalla Tourist Rd. This section will require the reconstruction of two trestle bridges between Thomson and Platina, one of which has already been disassembled in preparation for this.

Completing the extension from O'Shea & Bennett's Siding to Erica will require the re-excavation of the former cutting where Boola Rd crossed the railway on a bridge; from 1975 the cutting was used as a municipal garbage dump by the Narracan Shire Council, then entirely filled in and the road rebuilt across the top. There is also a large trestle bridge which requires reconstruction across Jacobs Creek, shortly before Erica station.

The Baw Baw Shire Council considered in late 2007 selling a large section of the Erica station site to the caravan park operators currently leasing the site, which would retain only an 18-metre-wide easement for the eventual reconstruction of the station by the Walhalla Goldfields Railway. The in-principle decision was later revoked.

In late 2015 the railway purchased X1 trams #461 and #463 for the purpose of conversion to rail-motors to allow 7 days-a-week operation with reduced crewing.

Reconstruction of the line from Erica to Moe would likely be impractical and uneconomical, as the original right of way was sold in many places, and is partly covered by the waters of the Moondarra Reservoir.

9 HERITAGE LISTINGS

THOMSON RIVER BRIDGE – REGISTER OF THE NATIONAL ESTATE

"Thomson River Narrow - Gauge Railway Bridge (entry AHD19194)". *Australian Heritage Database*. Department of Sustainability, Environment, Water, Population and Communities.

http://www.environment.gov.au/cgi-bin/ahdb/search.pl?mode=place_detail;place_id=19194

Thomson River Narrow - Gauge Railway Bridge, Walhalla Rd, Walhalla, VIC, Australia

Photographs



List Register of the National Estate (Non-statutory archive)

Class Historic

Legal Status [Registered](#) (30/05/1995)

Place ID 19194

Place File No 2/10/269/0016

Statement of Significance

The Railway Bridge over the Thomson River (1909) is a key remnant structure of the Moe to Walhalla Narrow Gauge Railway, which was associated with both the gold mining and timber industry eras of the region. The railway was associated with the rapid decline of the Walhalla township, providing a means to remove buildings and infrastructure after output from the gold mines began to reduce. After the closure of the Long Tunnel Mine at Walhalla in 1914 the focus of the railway became associated with the timber industry of the Thomson River Valley. Timber was collected from a number of stops and sidings along the line, to which it had been brought from the forest by timber tramways (Criterion A.4).

The Bridge is an important part of the Moe to Walhalla railway line which was thought of as an engineering marvel and achievement at the time of its construction. The Bridge was constructed from

redundant bridge materials from other lines, to form an unusual composite structure to cross a major river (Criterion F.1).

Official Values Not Available

Description

The Railway Bridge over the Thomson River was part of a Narrow Gauge Railway from Moe to Walhalla, constructed between 1904 and 1910. The Railway was one of four narrow gauge railway lines constructed in Victoria early this century. Narrow gauge was chosen in contrast to standard gauge in an effort to save money on construction costs. The other narrow gauge lines were Wangaratta to Whitfield (opened 1899), Ferntree Gully to Gembrook and Colac to Beech Forest (Ward, 1988). The township of Walhalla is located on the steep hillsides surrounding Stringers Creek. It was established in 1863, following discovery of gold and grew quickly, with the population reaching 1,489 people by 1870. Lobbying for a railway connection between Walhalla and the main Gippsland line at Moe began in 1873 (Watson, 1990). It was thought that the railway would provide access to Walhalla and enable the surrounding area to be opened up and would be able to freight supplies to the town, as well as coal and timber to feed the Mine's boilers (Planning Collaborative and Butler, 1984 and Fletcher, 1992). After many years of lobbying and various surveys of possible routes for a railway, approval was given in October 1900 for the construction of a narrow gauge line from Moe to Walhalla. Construction began in May 1904. By this time, the population of Walhalla had fallen to 2,061 people, after peaking at 3,648 people in 1898 (Watson, 1990). Work on the line was steady for the first section of ten miles, from Moe to the Tyers River. After that, problems with funding interrupted work, and construction proceeded at a rate of four miles a year (Supple et al, 1990). By 1909, the line had reached the Thomson River and the Bridge was constructed. The line reached Walhalla in 1910, with the official opening in May 1910. By this time Walhalla was noticeably in decline due to declining output from the mines, and the population had reduced to 1,600 people (Watson, 1990). The richest mine, the Long Tunnel Mine, closed in 1914 (Supple et al, 1990), and the town contracted dramatically during World War One. The train contributed to this decline, enabling the removal of buildings, mining equipment and other infrastructure for use in other places. With the decline of Walhalla, other settlements down the line increased in size due to sawmilling and agriculture and provided the majority of traffic (Walhalla Goldfields Railway (Incorporated), 1993). A network of timber tramways were built in the forest to feed harvested timber into sidings along the railway line, from where it could be transported to Mills. During the 1920s there were eleven stops and sidings between Moe and Walhalla, including one at Thomson, near where the bridge crosses the river (Fletcher, 1992). After the early depression years Walhalla contracted in size to barely 150 people and the railway beyond Erica carried negligible freight, although a modest tourist traffic was built up. With the gradual improvement in local roads, rail traffic beyond Platina (the rail head for copper mining settlement of Coopers Creek) declined to almost nothing by the early 1930s (Walhalla Goldfields Railway (Incorporated), 1993). Although the line continued to carry a number of tourists it closed from Platina to Walhalla in March 1944. The Platina to Erica section remained until 1952 and the last section from Erica to Moe closed in 1954 (Fletcher, 1992). After the final closure all the locomotives and rolling stock were transferred from Moe and a number of these items are in service on the Puffing Billy Railway (Walhalla Goldfields Railway (Incorporated), 1993). In 1952 a small group of

Melbourne businessmen attempted to re-open a section of line from Walhalla, but were prevented from their intentions due to legislation at the time which stopped private organisations operating former government railways (Walhalla Goldfields Railway (Incorporated), 1993). The entire line was eventually dismantled between 1958-1962 apart from a number of timber trestle bridges and the substantial steel and concrete bridge over the Thomson River. In the early 1960s an attempt was made to blow up the bridge over the Thomson River as an army exercise, but a public outcry prevented its demolition (Walhalla Goldfields Railway (Incorporated), 1993). A further attempt to open the line from Walhalla was made during the 1970s and attained some success, including the construction of substantial buildings, acquisition of rolling stock and equipment and featured steam train rides in the relaid Walhalla station yards. However, this venture was unable to progress beyond the Walhalla station ground, and the operator dispersed the assets and vacated the site by 1984. A number of buildings erected during this period remain, including the substantial brick station building and engine shed (Walhalla Goldfields Railway (Incorporated), 1993). The bridge is at present being reconstructed as part of a venture aiming to reconstruct the section of the Moe to Walhalla narrow gauge railway from Thomson to Stringers Creek Gorge, near Walhalla. The construction of the railway was hailed as an engineering marvel at the time of its construction (Evans, 1987). It included a horseshoe curve, road beds cut into the precipitous valley sides of the Thomson River, and a final stretch along the course of Stringers Creek running into Walhalla township, where a lack of space resulted in the tracks running above the creek bed on low trestles (Ward, 1988). Much evidence of the railway line remains: the sites of Knott's and Platina sidings, embankment, sleepers, trestle bridge and the cement pylon railway bridge over the Thomson River (Supple et al, 1990). The Thomson River bridge is a girder bridge almost 100 metres long, and little more than two metres wide. It is comprised of four concrete piers supporting the river spans, as well as five timber trestle piers and two timber abutment piers supporting the approach spans. The approach spans are wrought iron bridge beams which had previously been used in the North Eastern Railway Line. The first and third main river spans are mild steel girders, new at the time of construction. The second river span (in the middle of the bridge) is a mild steel lattice girder which had previously been used in a bridge at Tocumwal (a Murray River town, NSW). (Public Transport Corporation -Victoria). The bridge crossed the Thomson River on an angle and its concrete piers were built in line with the rivers flow. The side of the pier facing upstream is pointed, following the same principle as a ship's bow (Historic Buildings Council (HBC) register documentation). The Bridge combines aspects of standard Victorian Railways techniques of timber bridge construction, with an unusual arrangement of the steel superstructure. It has used redundant bridge materials from other lines with the addition of new materials to form a significant structure to bridge a major river. The Bridge has a number of technical oddities such as cantilevering of the first and third main river spans, the way the decking was laid out, and the layout of the beams to suit the skewed nature of the Bridge (Tourist Railway and Museum Engineers and Management Consultants Pty. Ltd. 1993A). The Thomson River Valley in the vicinity of the Bridge is hemmed in by steep hills covered with forest regrowth. The Bridge appears dramatically around the bends in the road from both directions (HBC register documentation). The Bridge is one of the most well known and photographed landmarks in Gippsland.

History Not Available

Condition and Integrity

The concrete piers and steel and wrought iron girders are in good condition, but the remaining timber trestle approaches were demolished in early 1994 following extensive engineering surveys which confirmed their unsafe condition. Some of the steel bracing has suffered corrosion ranging from minor to total. Although most of the timber decking was removed around 1958 (when tracks were dismantled), a derelict portion remained until 1993 when it was taken away to allow engineering inspections of the girders it covered. The most severely corroded top plates were on those spans which had retained the decking - this being caused by water retention. In order to minimise the logistical difficulty and cost of repairing the steel and iron girders on site, they were removed in October 1993 for restoration at a number of premises in the Latrobe Valley. These works involve the replacement of a number of cover plates and braces, reconditioning of beams and final sandblasting and painting. Preparation of the foundations for the timber trestle approaches is continuing separately at the Thomson River, along with the sourcing of appropriate species timber for the piles, bracing and decking. The reconstructed trestle arrangements have been prepared from the original Victorian Design Plans for the Bridge. The restored bridge girders will be re-erected after the trestles are built and it is expected that the Bridge will be passed as safe for traffic later in 1994.

Location

Four kilometres south-west of Walhalla, 200 metres downstream from the Thomson River road bridge carrying Walhalla Road.

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VICTORIAN HERITAGE REGISTER

RAIL BRIDGE

THOMSON RIVER, WALHALLA and RAWSON, BAW BAW SHIRE

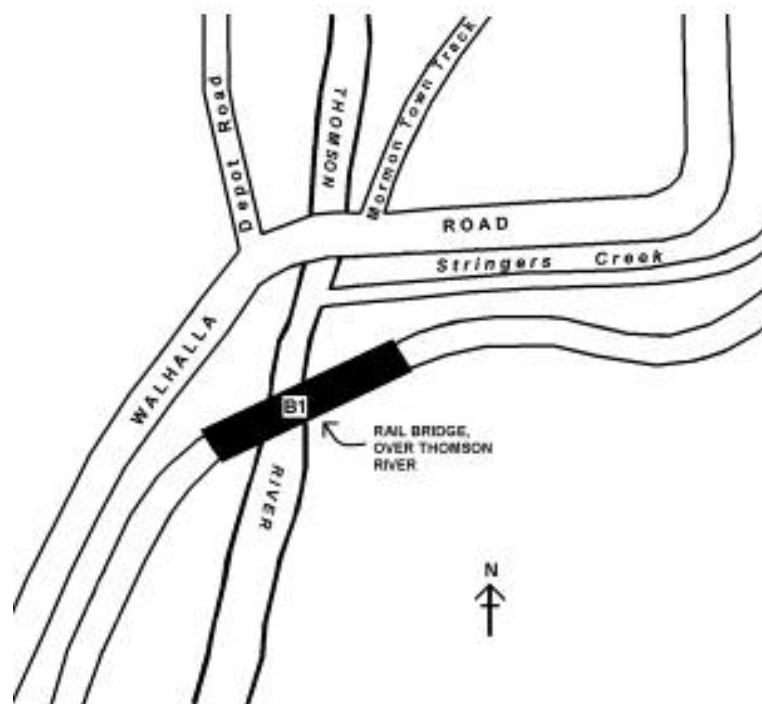
See more at: <http://vhd.heritagecouncil.vic.gov.au/places/1175#sthash.OzW7LfGb.dpuf>



THOMSON RIVER BRIDGE 2008. IMAGE: HERITAGE VICTORIA.



THOMSON RIVER BRIDGE APRIL 1995. IMAGE: HERITAGE VICTORIA.



THOMSON RIVER BRIDGE SITE PLAN. GRAPHIC: HERITAGE VICTORIA.

STATEMENT OF SIGNIFICANCE

Last updated on - April 1, 1999

What is significant?

Construction of the Rail Bridge, over Thomson River on the Moe to Walhalla Railway was completed late in 1909 and the line was eventually opened through to Walhalla by March 1910. The Moe to Walhalla railway was one of four experimental routes constructed early this century. The lines were intended to develop isolated districts where conventional broad lines incurred prohibitive construction costs. In particular the Moe to Walhalla Railway was constructed to support the gold boom in the area, but ironically this had nearly ceased by the time the railway was built. The necessity to cross the Thomson River some five kilometres south west from Walhalla required the largest single structure on the railway. The Victorian Railways designed a substantial bridge which contained four central concrete piers built into the river bed, the construction of which required temporary diversion of the river. The line was closed in 1954 and re-opened in 1994, to serve as a tourist railway.

The Rail Bridge, over Thomson River is a girder bridge almost 100 metres long and little more than two metres wide. It is comprised of four concrete piers supporting the river spans, as well as five timber trestle piers and two timber abutment piers supporting the approach spans. The approach spans are wrought iron bridge beams which had previously been used in the North Eastern Railway Line. The first and third main river spans are mild steel girders, new at the time of construction. The second river span is a mild steel lattice girder which had previously been used in a bridge at Tocumwal. The bridge remains largely intact and carries a timber deck and single, narrow-gauge rail track over the Thomson River Valley, serving the tourist railway from Thomson to Stringer's Creek Gorge.

How is it significant?

The Rail Bridge, over Thomson River, Walhalla is of historical, social and architectural significance to the State of Victoria.

Why is it significant?

The Rail Bridge, over Thomson River, Walhalla is of historical and social importance for its role in connecting the gold mining town of Walhalla with Moe and Melbourne after Walhalla had been isolated by distance and topography for most of its productive years. It also serves as a reminder of the expense incurred to build a railway in anticipation of the successes from the gold mining area, which never eventuated. The line's re-opening in 1994 as a tourist railway is of social importance in demonstrating the interest historic railways generate in the community.

The Rail Bridge, over Thomson River is of architectural importance as the largest structure built on the narrow gauge lines and is representative of railway engineering practice of the early twentieth century. It serves as a reminder of the difficult engineering achievements involved in spanning the wide crossing over the Thomson River at an isolated location. The bridge is important as a significant section of the Moe to Walhalla line which, clinging to sheer slopes and spanning thirteen bridges beyond Erica, attracted international attention as a minor masterpiece of innovative engineering. The bridge is of architectural importance for its unusual construction type, using a combination of structural materials including recycled mild steel girders and a lattice girder as well as concrete piers, timber trestle piers and timber abutment piers.

10 ASSESSMENT OF SIGNIFICANCE

Refer to Heritage Listings in Section 9 above.

11 INTERPRETATION PLAN

It is intended to conduct the heritage recognition ceremony for Walhalla Goldfield Railway as a part of the Engineers Country Weekend to be held in Traralgon from 7 to 10 October 2016. The actual ceremony will be held on Sunday 9 October 2016 at the Walhalla Railway Station.

The proposed interpretation will consist of an interpretation panel measuring 1200 w x 600 h mounted on a steel frame at an angle to the horizontal plane. The final location of the panel has yet to be determined however it will most likely be in the car park at Walhalla Station. Panel design is being carried out in parallel with the writing of this nomination and will be submitted to the HRC as soon as possible.

The use of a 300 mm diameter round EHM marker has not yet been confirmed. The representation of the marker on the panel will be enlarged to provide a significant representation of the marker if a round marker is not used.

Text for proposed Interpretation Panel

The Moe to Walhalla Railway – a minor masterpiece of railway engineering

The Victorian Railways encountered few difficult engineering design issues on the first part of line from Erica to Moe, although a number of bridges were needed in the section. Beyond Erica, construction of the line traversed the lower part of the Baw Baw ranges and numerous bridges and cuttings were needed to achieve some of the steepest gradients and sharpest curves on any part of the Victorian railway network.

Shortly after leaving Erica Station, the railway crossed Jacobs Creek, requiring 73 metres of bridging on the highest crossing on the entire railway. The railway then descended into the Thomson Valley with two trestle bridges required just before the simple nameboard station at Thomson.

The adjacent Thomson River presented a major design challenge for the Victorian Railways, with the valley needing a crossing length of 106 metres and the ability to withstand major flood events. Planning for the bridge was constrained by available funding restrictions, and was eventually assisted by the centre lattice span being reused from a former road bridge over the Murray River at Tocumwal (NSW). The other main beams came from locations on the Melbourne-Albury railway and were also regauged to suit the narrow gauge (762mm) track specification. Site construction commenced in February 1909 and on 20 October 1909, the new bridge was tested under load with an NA class locomotive.

Once the Thomson Bridge was completed, work immediately commenced on the challenge of negotiating the deep Stringers Creek gorge into Walhalla, requiring construction of eight bridges in the section, as well as substantial sections of drystone walling which remain today.

The final task was the provision of a full rail yard, station, goods shed and associated buildings in a very constrained setting at Walhalla. This was achieved by substantial cut and fill as well as construction of a tunnel over Stringers Creek, the created space of land above it being used for the station building.

The Victorian Railways required great ingenuity and design skills to construct the line in a particularly difficult and remote setting, and the scale of the work was celebrated at the time of opening. After the line was closed, all of the tracks and buildings were dismantled and the encroaching bush rapidly removed most visible traces of it.

The reconstruction of the Walhalla Goldfields Railway between 1992 and 2002 was partially facilitated by the use of modern equipment to assist the work, such as the use of large cranes to remove the Thomson River bridge beams in one weekend for restoration at Morwell. In order to preserve the design heritage, the rebuilding effort specifically returned as much as possible of the remaining artefacts back into service. This included reinstatement of collapsed sections of drystone walling, restoration and re-use of remaining original bridge beams from the remaining structures.

A century after opening of the original line, the revived Walhalla Goldfields Railway has brought back to life the engineering achievements so carefully undertaken by the Victorian Railways.

492 words

APPENDIX A: REFERENCES

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APPENDIX B: HERITAGE AWARD NOMINATION LETTER

The Heritage Advisor
Engineering Heritage Australia
Engineers Australia
Engineering House
11 National Circuit
BARTON ACT 2600

Name of work: Walhalla Goldfields Railway

This work is nominated for an Engineering Heritage Marker award under the Engineering Heritage Recognition Program of Engineers Australia.

Location, including address:

Walhalla Goldfields Railway Inc, Walhalla Station, 2 Main Road, Walhalla, Victoria 3825

Grid reference:

From Walhalla Railway Station:
Latitude: 37.950621 south, Longitude: 146.449345 east
To Thomson Railway Station:
Latitude: 37.959974 south, Longitude: 146.419472 east

Owner:

Walhalla Goldfields Railway Inc, Walhalla Station, 2 Main Road, Walhalla, Victoria 3825

Owners Agreement:

The owner has been advised of this nomination and a letter of agreement will be attached in due course.

Access to site:

There is no limitation to public access. The railway takes fare paying passengers on a regular basis.

Nominating Body:

Engineers Australia, Gippsland Regional Group

Ian Newnham
Engineers Australia, Gippsland Regional Group
Date: 25 September 2016

David LeLievre
Chair
Engineering Heritage Victoria
Date: 25 September 2016